

SUPPORT FOR THE AMENDMENT

This Amendment amends Claim 14. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1-18 will be pending in this application. Claims 1, 10, 11, 12, 15, 17 and 18 are independent. Claims 1-10 and 18 are withdrawn from consideration pursuant to a Restriction Requirement.

REQUEST FOR RECONSIDERATION

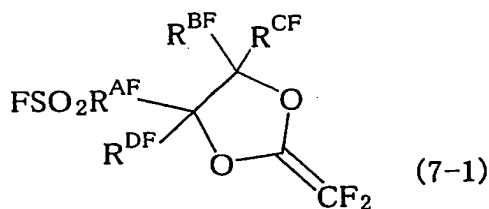
Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

The present invention provides a fluorosulfonyl group-containing polymer produced by polymerizing a cyclic compound having a characteristic structure having a polymerizable unsaturated group ($>C=CF_2$) and a fluorosulfonyl group ($-SO_2F$ group).

Claims 11-17 are rejected under 35 U.S.C. § 103(a) over JP 05213929 ("Kazuya") in view of U.S. Patent No. 3,282,875 ("Connolly").

Claims 11-17 are rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,586,626 (sic) or its equivalent WO 2000/56694 (collectively "Okazoe") in view of Connolly.

The cited prior art does not disclose or suggest the compound of formula 7-1 required by the products and processes of the present claims. Unlike the prior art compounds, this compound contains a fluorosulfonyl group ($-SO_2F$).



Based on the English abstract and first page of the Japanese-language patent, the R1 group of Kazuya does not appear to correspond to $\text{-SO}_2\text{F}$, nor does Compound Ve-50 shown in Example 27 (col. 37) of Okazoe contain $\text{-SO}_2\text{F}$. Connolly does not disclose the compound of formula 7-1 either, but was cited as teaching preparation of copolymers from fluorosulfonyl-containing monomers. While Connolly describes fluorosulfonyl-containing monomers, it provides no motivation for adding a fluorosulfonyl group to the compounds of the primary references or that would impart any beneficial characteristics on the compounds described by the primary references. Thus, there is no suggestion in the prior art for substituting a fluorosulfonyl group at the position shown in formula 7-1 into a prior art monomer and using such a monomer to produce a polymer.

The Final Rejection at section 7, lines 5-6, admits that "both primary references indeed do not disclosed or suggest the structure of the claimed monomer at all". Furthermore, the Final Rejection at section 8 admits that "[s]econdary reference Connolly cannot fix the deficiency of Kazuya or Okazoe; the motivation to link is thereby missing for both 103 rejections". Thus, the cited prior art fails to render the claimed invention *prima facie* obvious.

Any *prima facie* case of obviousness based on the cited prior art is rebutted by the significantly improved characteristics achieved using the cyclic monomer compound (7-1) of the present invention instead of the linear monomer of Connolly. This is demonstrated in the data found in the attached copy of U.S. Patent Application Publication No. US2005/0266291A1. Example 7 of US2005/0266291A1 is identical to Example 9 of the above-identified application; both describe the copolymerization of tetrafluoroethylene and the same cyclic monomer compound. In Comparative Example 2 of US2005/0266291A1 a copolymer was prepared in the same manner as Example 7 of US2005/0266291A1 and Example 9 of the above-identified application except that linear monomer, as in Connolly,

the cyclic monomer of the present invention. US2005/0266291A1 at [0163]-[0167] shows that the polymer produced using the cyclic monomer of the present invention exhibits significantly improved high-temperature and oxygen gas solubility characteristics relative to the monomer produced using the linear monomer of Connolly. The cited prior art fails to suggest these improved characteristics. Thus, any *prima facie* case of obviousness based on the cited prior art is rebutted.

Because the cited prior art fails to render the claims *prima facie* obvious, and, in any event, *prima facie* obviousness is rebutted, the rejections under 35 U.S.C. § 103(a) should be withdrawn.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Corwin P. Umbach, Ph.D.
Registration No. 40,211

Attached: U.S. Patent Application Publication No. US2005/0266291A1

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 06/04)